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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,795	08/14/2001	Arnon Shani	U013484-1	3790

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EXAMINER

JIANG, SHAOJIA A

ART UNIT	PAPER NUMBER
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1617

DATE MAILED: 07/29/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/856,795

Applicant(s)

SHANI ET AL.

Examiner

Shaojia A Jiang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 7, 2003 and March 7, 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 53-108 is/are pending in the application.
- 4a) Of the above claim(s) 64-69, 74, 83-88, 105 and 106 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 53-63, 70-73, 75, 107 and 108 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 7, 2003 has been entered in Paper No. 13.

This Office Action is a response to Applicant's request for continued examination (RCE) filed May 7, 2003 in Paper No. 13, and amendment and response to the Final Office Action (mailed December 3, 2002), filed March 7, 2003 in Paper No. 11 wherein claims 53, 55-56, 72, 75 and 76 have been amended, and claim 108 is newly submitted. Currently, claims 53-108 are pending in this application.

It has been indicated in previous Office Actions, December 3, 2002 and May 8, 2002, that Applicant's election with traverse of the invention of species of an alginate polysaccharide, a protein which is gelatin, a pheromone which is gossypure, and a gellant which a calcium salt solution, in Paper No. 7, submitted February 12, 2002.

The claims have been examined insofar as they read on the elected specie.

Therefore, claims 64-69, 74, and 83-88 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

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As discussed in the previous Office Action December 3, 2002, claims 105-106 drawn to the invention of a method for the sustained release of a volatile material and a method for treating a volatile material herein that is independent or distinct from the invention originally claimed of the invention originally drawn to the composition herein and the process for preparing the composition herein. The original invention and the claimed invention (claims 105-106) are separate and distinct, related as product and method of use,. See MPEP § 806.05(h). Moreover, According to MPEP § 706.07(h), Applicant cannot switch inventions in RCE.

Therefore, claims 105-106 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Claims 53-63, 70-73, 75, and 107-108 are examined on the merits herein.

Applicant's amendment and remarks filed on March 7, 2003 in Paper No. 11 with respect to the rejection of claims 53-63, 70-73, 75, and 104 made under 35 U.S.C. 112 second paragraph for the use of the indefinite expressions, i.e., "in respective amounts such that....such that" in claim 53, "a slower release rate" in claim 75, and the limitation "A dispersion" in claim 104 of record stated in the Office Action dated December 3, 2002 have been fully considered and found persuasive to remove the rejection. Therefore, the said rejection is withdrawn.

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 53-63, 70-73, 75, and 107-108 as amended now are rejected under 35 U.S.C. 103(a) as being unpatentable over Connick (4,401,456) and Nitto Electric Ind Co. (Abstract, JP58121212) in view of Meinke et al. (Journal of Economic Entomology, 1989, Vol 82, 1830-1835) for reasons of record stated in the Office Action dated December 3, 2002.

Connick discloses water insoluble beads in a sustained release polymer matrix comprising droplets of an oil in water emulsion in a polymeric matrix (see col.2 lines 45-58 and Examples therein), surface active agents broadly, aliginate (the particular polysaccharide), bioactive material (one volatile hydrophobic component herein), and water; and the process for preparing such a sustained release, polymer, and water insoluble beads therein. Connick also discloses the size of beads therein is 0.1-5 mm, 0.8-2 mm, or 0.1-6 mm; and the gellant is a calcium solution; a bioactive material may be herbicide or insecticide. See abstract, col.1, col.3-4, col.5 lines 1-16, Examples 1-14 and claims 1-11.

Nitto et al. discloses a sustained release, polymer, and water insoluble gel-like body comprising sodium polyacrlate compound having at least one epoxy group per molecule, cationic surfactant, volatile substance which is in emulsion form, and water;

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the volatile substance which may be a perfume repellent, attractant, insecticide, and fungicide, is used in amount of 30% or less based on the total weight of the body. See abstract.

The prior art does not expressly disclose that the particular surfactant may be a protein such as gelatin, that the particular volatile component may be pheromone such as gosspluer.

Meinke et al. discloses that the particular bioactive material, pheromone, is known to be used in a sustained release, polymer, and water insoluble delivery system for western corn rootworm. See abstract and the entire article.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the particular surfactant such as a protein (gelatin), and employ the particular volatile component such as pheromone (gosspluer) in the instant claimed beads.

One having ordinary skill in the art at the time the invention was made would have been motivated to employ the particular surfactant such as a protein (gelatin) in the instant claimed beads since gelatin is a well known surfactant and well known in the art to be useful in a sustained release, polymer, and water insoluble delivery system. Moreover, the employment of surfactants broadly is known in the sustained release, polymer, and water insoluble beads of Connick and the sustained release, polymer, and water insoluble gel-like body of Nitto et al. Therefore, one of ordinary skill in the art would have reasonably expected that gelatin would be useful in the delivery systems of Connick and Nitto as a surfactant.

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Additionally, one having ordinary skill in the art at the time the invention was made would have been motivated to employ the particular volatile component such as pheromone (gosspluer) in the instant claimed beads since the employment of bioactive material broadly such as a perfume repellent, attractant, insecticide, and fungicide, is known in the delivery systems of Connick and Nitto. Pheromone as herbicide or insecticide is also known to be useful in a sustained release, polymer, and water insoluble delivery system for western corn rootworm. Therefore, one of ordinary skill in the art would have employed the particular volatile component such as pheromone in the instant claimed sustained release system.

Thus the claimed invention as a whole is clearly prima facie obvious over the combined teachings of the prior art.

Applicant's remarks filed on March 7, 2003 in Paper No. 11 with respect to this rejection under 35 U.S.C. 103(a) as being unpatentable over Connick (4,401,456) and Nitto Electric Ind Co. (Abstract, JP58121212) in view of Meinke et al. in the previous Office Action December 3, 2002 have been fully considered but are found persuasive as discussed further below.

Applicants argue that Connick does not teach "volatile hydrophobic component" herein. However, Connick clearly discloses bioactive materials broadly such as herbicides and insecticides and many other agents therein which may be in the form of liquids, solids, and gases (see col.4 lines 12-22). Thus, the bioactive materials taught by Connick have covered volatile hydrophobic components herein.

Applicant's arguments regarding the absence of any motivation to modify Connick to arrive at the claimed invention have been considered but not found convincing, since the water insoluble beads in a sustained release polymer matrix of Connick comprising all components in claim 53 herein, droplets of an oil in water emulsion in a polymeric matrix, surface active agents broadly, aliginate (the particular polysaccharide), bioactive material broadly (one volatile hydrophobic component herein), and water, except for the particular surfactant, which is a protein, gelatin, a known surface active agent. As discussed above in the 103(a) rejection, gelatin is a well known surfactant and well known in the art to be useful in a sustained release, polymer, and water insoluble delivery system.

Hence, Connick' reference has clearly provided the motivation to make the present invention and the other two references have been cited primarily for their teachings regarding the known particular components in the composition herein.

Therefore, motivation to combine the teachings of the prior art cited herein to make the present invention is seen, and the instant claimed bead is seen to be obvious in view of the disclosure of Connick in combination with Nitto Electric Ind Co. and Meinke et al.

Moreover, the recitation relating to the atmospheric release characteristics of the claimed water insoluble beads is not considered a limitation to the claimed water insoluble bead since it is well settled that "intended use" of a composition or product, e.g., applying in atmospheric air, will not further limit claims drawn to a composition or

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product. See, e.g., *Ex parte Masham*, 2 USPQ2d 1647 (1987) and *In re Hack* 114, USPQ 161, as discussed in the previous Office Action.

Further, "released into the atmosphere by evaporation" is also considered to be the inherent property of the composition herein. It is well settled that recitation of an inherent property of a composition or method will not further limit claims drawn to a composition or method.

Furthermore, as discussed in the previous Office Action December 3, 2002, Applicant's Examples 1-26 herein of the specification at pages 8-16 have been fully considered with respect to the nonobviousness and/or unexpected results of the claimed invention over the prior art but are not deemed persuasive for the reasons below. These Examples provide no clear and convincing evidence of nonobviousness or unexpected results over the cited prior art since they provide no side-by-side comparison with the closest prior art in support of nonobviousness for the instant claimed invention over the prior art.

For the above stated reasons, said claims are properly rejected under 35 U.S.C. 103(a). Therefore, said rejection is adhered to.

In view of the rejections to the pending claims set forth above, no claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Jiang, whose telephone number is (703) 305-1008. The examiner can normally be reached on Monday-Friday from 9:00 to 5:00.

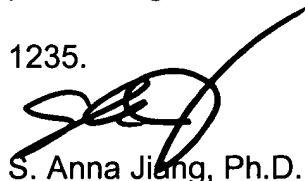
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan, Ph.D., can be reached on (703) 305-1877.

The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-

1235.

A handwritten signature in black ink, appearing to be 'S. Anna Jiang', is written over the printed name.

S. Anna Jiang, Ph.D.
Patent Examiner, AU 1617
July 22, 2003